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SOME NOTES ON THE NESTING OF THE SHARP-SHINNED HAWK

By HENRY J. RUST

WITH EIGHT PHOTOS BY THE AUTHOR

MY OPPORTUNITY for observing the nesting of the Sharp-shinned Hawk (*Accipiter velox*) began on the 15th of June, 1913. I was passing by a dense stand of Douglas fir (*Pseudotsuga taxifolia*) on the south slope of Tubb's hill*, about half way between the summit and the base, when an unusual disturbance was heard among the members of a small flock of mountain chickadees. I surmised that a hawk was causing the trouble and on drawing closer a male Sharp-shinned Hawk flew out of the thicket and lit on a fir tree nearby.

My presence was noted immediately, perhaps before the bird left the thicket, and brought forth a continuous "cha, cha, cha, cha". I realized at once that I was considered an intruder and had been warned to leave; however, I could not resist the temptation to look for a nesting site, and on entering the thicket I soon discovered the nest, and the secret was out. A light rap on the trunk of the tree and the mother bird left the nest; with a slight motion of the wings she reached a large fir tree about 25 yards distant and perched on a limb where the nest could be observed.

The nest was situated well up in a small-sized Douglas fir. Owing to the density of the stand the lower limbs were very small and brittle. Laying aside hat and coat I made ready for a visit to the home. After no little effort I reached the brim of the nest and felt well repaid by even one gaze at the five beautiful eggs lying in the slight hollow of the nest.

The nest was composed entirely of small dry fir twigs and was situated 34 feet from the ground, on the south side of the tree, and measured 32 inches in length, 17 inches in width, and 8 inches in greatest depth. It was saddled on three limbs averaging three-fourths of an inch in diameter, two of them 8 inches apart at the outer edge of the nest and the other space 16 inches. The nest was a little thicker at the trunk of the tree. This, with the upward angle of the three limbs, gave a fairly good bearing for holding the nest secure during the swaying of the trees as a result of hard wind and rain storms so common in this locality. The diameter of the tree at the nest was $5\frac{1}{4}$ inches, and at the base, breast high, 9 inches. As the tree began to reach the light towards its top the limbs were more numerous and the foliage much denser, so that a few feet above the nest they formed a heavy shade.

The eggs were lying in a slight depression in about the center of the nest. There was no lining of any kind, except one wing feather of an old bird near the eggs, which had probably been lost during nest-building. The ground-color of the eggs was a light greenish, with heavy irregular markings of rich brown. Size of eggs: 1.50x1.37, 1.50x1.36, 1.50x1.31, 1.48x1.32, 1.48x1.25.

The mother bird showed her disapproval of my presence by a constant "cha, cha, cha," much shriller than the note of the male, and by darting back and forth, striking close enough to raise my hair with the rush of her wings. The male bird kept up similar but less shrill cries, but did not strike at me though he kept passing back and forth near the nest. In hopes of taking a series of photographs of the nest, eggs and young, I left the nesting site with the intention of returning

* A small hill bordering on the shore of Lake Coeur d' Alene and forming part of the township of Coeur d' Alene, Idaho.

as soon as I could with a camera outfit, as the location was just about an hour's trip from my home.

The nesting site was again reached late in the afternoon of the 18th. The male bird was not in sight; a slight rap on the tree and the female left the nest as upon my first visit and perched on a limb of a large fir which proved to be her regular landing and firing station during all my visits. Owing to numerous limbs it was impossible to haul up anything from the ground with a rope, so I placed my camera outfit in a pack-sack on my back and ascending to the nest fastened the sack to adjacent limbs.

In contemplating a photograph of the nest in its natural situation I began to realize that I had no small task on hand. The limbs below the nest were too low to afford a working position, and just above the nest the limbs were too close,



Fig. 9. NESTING LOCALITY OF SHARP-SHINNED HAWK NEAR COEUR D' ALENE, IDAHO;
TOP OF NEST TREE AT CROSS (X); TALL TREE NEAR CENTER, REGULAR LOOKOUT
STATION FOR FEMALE HAWK

so much so as to interfere greatly with the camera adjustments. As it was getting late and the light was growing poor I had to get busy. I lashed a small tripod to the trunk of the tree in a horizontal position and with the aid of a tilting attachment was able to get a vertical adjustment showing the eggs and a portion of the nest. A strong wind came up while I was focusing and I was in constant fear of dropping some part of the outfit on to the eggs; and at the rate the tree was swaying I was not sure of my own safety.

The light had grown so weak that a time exposure was necessary, and it began to look as if I would not have much success. As I had worked so hard already I thought I would take a chance, and so exposed three plates. I had to descend below the nest at each exposure to lessen the weight at the top of the

tree. All I had expected was a blur, but I was well pleased with the results upon development.

The mother bird grew very anxious about her eggs and kept my head cool with the rush of her wings. I left the tripod lashed to the tree a short distance above the nest, but it was some time before she would finally settle down on the eggs.

Not knowing when incubation started I realized it would take numerous trips to keep watch of the eggs. The nest was visited again on June 23. The male bird was away, and I was beginning to think something had happened to



Fig. 10. NEST OF SHARP-SHINNED HAWK SITUATED 34 FEET FROM GROUND IN DOUGLAS FIR

him. The female was flushed as before, but there had been no change in the eggs and there were no signs of food at the nest. My next visit was on the 29th. This time the male bird was near the nesting tree and greeted me with the usual scolding. The female left the nest as soon as I commenced climbing, and returned to the eggs as soon as I returned to the ground. No change was noted in the eggs.

My next visit was on the morning of July 2. While approaching the nesting site I observed the male bird returning with a small bird in his claws and followed by a number of indignant swallows. The hawk seemed to resent the attacks of

the small birds, but not being in a position to defend himself lost no time in reaching the cover of the trees. On reaching the nest I found four of the eggs pipped, one with the opening large enough to reveal a small portion of the young bird in motion. Faint peeps were heard.

I returned to the nest at 4 P. M. and found that one young bird had hatched, and one other egg had a small opening through its side. The young bird was covered with fine white down over the entire body, permitting the color of the flesh to show through, giving a slight pink appearance. The eyes were open and very dark in color. The plucked body of a small bird rested on the nest. The



Fig. 11. EGGS OF SHARP-SHINNED HAWK AS RESTING NATURALLY IN THE NEST;
PHOTOGRAPH TAKEN JUNE 18, 1913

young hawk picked at the remains of the bird when it was held close to it, but to no effect.

On July 3, 10:30 A. M., the male hawk began his shrill cries long before I reached the thicket. The female was very ferocious, keeping up a constant "cha, cha, cha", and striking at me again and again from the time I began to climb to the nest. On reaching the nest I found three more young hatched and the fifth egg pipped on one side. The first young hawk was able to raise its head and seemed quite alert. The other three were lying flat. No signs of food. I had brought my camera along this time and prepared for a negative of the four young.

While adjusting the camera it began to rain and the air became quite cool, causing the little birds to huddle all together. I exposed four plates and started for home. The mother bird returned to the nest before I had reached the ground.

The nest was visited again July 7 at 5:30 p. m. Drawing near the thicket I heard one hawk calling, which appeared to be the female as she proved to be not on the nest. As I approached the tree both birds uttered their cries and began striking at me long before I reached the nest.

Ascending to the nest I found five young birds showing slight differences in size. The last bird may have hatched on the 4th. They were lying close together



Fig. 12. FOUR YOUNG SHARP-SHINNED HAWKS IN THEIR NEST; THE ONE RESTING AGAINST THE EGG IS TWO DAYS OLD, THE OTHERS ONE DAY OLD; PHOTOGRAPHED JULY 3

with their heads thrown back, and seemed to have increased one-third in size since my last visit. There were no signs of food of any kind, only some blood clots on the twigs near the nest cavity and a few small feathers on the outer edge of the nest. The young birds pecked at my finger but did not seem very hungry. The old birds were very ferocious, more so than before. The male struck one hard rap between my shoulders while I was examining the young, and the female kept striking so close to my head as to make it very uncomfortable. After descending to the ground I hid near a small fir tree to watch the old birds. The female flew

to the nest and kept up a constant call; the male followed close to where I was standing and swooped at my head; shortly afterwards the female made a swoop direct from the nest and just grazed my head. I moved out of the thicket and both birds followed, perching eight or ten feet from me, uttering their shrill cries, and darting at my head at short intervals. I finally started back down hill and stopping fifty yards or more from the thicket looked up just in time to see the male hawk coming straight for me. I waved my hat and he circled and made for a tall tree near the nest, seeming satisfied that he had finally driven me away.

July 10 I visited the nest late in the afternoon. It had been raining all day and had just cleared up for a short respite. On reaching the nest I found the young ones had gained considerably in size; the sheathed feathers at the wing tips were about one-half inch long; their general appearance in color varied from pinkish



Fig. 13. NEAR VIEW OF TWO OF THE YOUNG SHARP-SHINNED HAWKS; AGES 9 AND 10 DAYS; PHOTOGRAPHED JULY 12

white to a dull yellow; the birds were able to hold their heads high and showed signs of resentment when I stroked them. There were no signs of food, and the old birds were not as ferocious as usual.

July 12 I reached the nesting ground about 10 A. M. I stopped about 150 yards from the thicket and was looking for signs of the old birds when I noticed the male hawk coming my way straight for my head. He sailed within a few feet of me, circled, and lit in a tall tree nearby. Reaching the nest tree I arranged the camera outfit in a sack and ascended to the nest. From the time I started climbing until I had made three exposures of the young in the nest, the female hawk struck at me thirty-nine times. Her wings often struck against my shoulders. The male struck three times, one good rap on my back with his wings. I had to keep my head as close to the tree trunk as possible to avoid claws.

Being able to take negatives from a vertical position only, I put three of the young hawks in a basket strapped on my back, descended to the ground with them, placed them on a platform of twigs on a large flat rock near the edge of the thicket, and made several exposures of them nearly life-size. The mother bird uttered a few low cries when she missed the young from the nest, but made no further fuss.

After returning the young to the nest I retired about twenty-five yards up the hillside where I could observe the nest with field glasses. The male hawk had been away for a short time and when he returned the female flew to the opposite edge of the thicket to meet him, uttering low cries, and soon returned to the nest. She seemed aware of my presence and kept up a constant scolding for some time. Presently I noticed her begin to tear strips of meat from some small mammal or

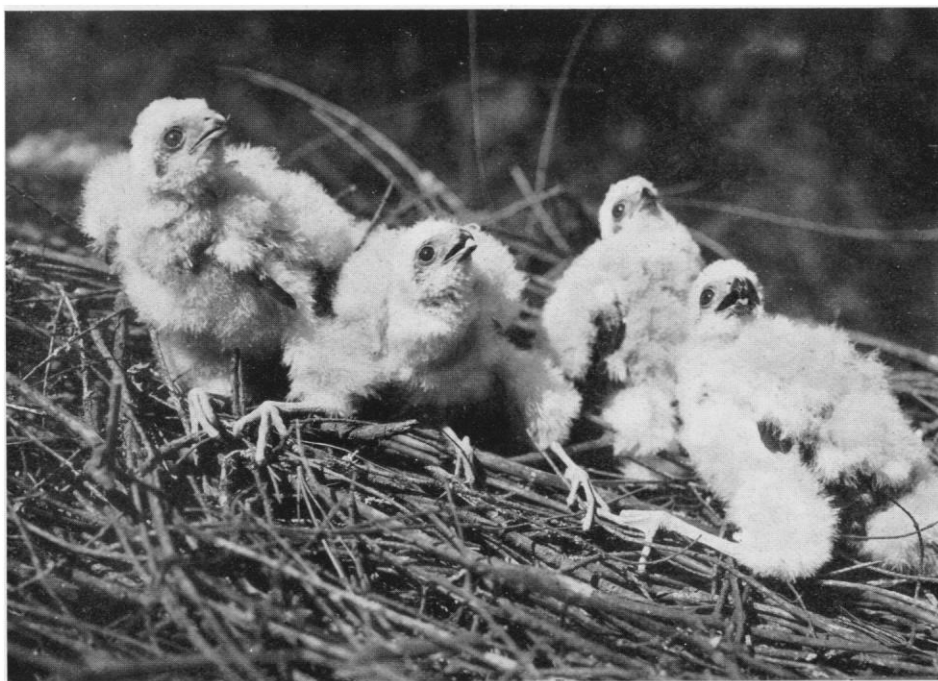


Fig. 14. FOUR OF THE YOUNG SHARP-SHINNED HAWKS AS PHOTOGRAPHED JULY 19 ON A PLATFORM OF TWIGS NEAR THE NESTING TREE; NOTE FEATHER-DEVELOPMENT HERE SHOWN, AT AGES OF 15, 16 AND 17 DAYS

bird she was holding down with one foot, and feed them to the young.

I ascended the tree as quickly as I could to determine if possible the nature of the food, and on reaching the nest found the leg of a young bird, all that was left. I offered it to one of the young hawks and it was gulped down whole, claws and all. I descended again and remained hidden for a long time, but not being able to observe any further feeding of the young I returned home.

July 16 I visited the nest late in the afternoon. Peering over the edge I thought one of the young hawks dead, but it happened that the three larger birds were reposing on the bodies of the two smaller ones. The largest hawk, the first one hatched, resented any handling by squaring back with wings outstretched and striking quite a blow with its bill at my hand.



Fig. 15. TWO OF THE YOUNG SHARP-SHINNED HAWKS AFTER THEY WERE ABLE TO FLY, AGED 23 DAYS; CAPTURED ONLY AFTER MANY HARD CLIMBS; PHOTOGRAPHED JULY 26

Wing-feather sheaths were now showing on all the birds about two inches long, with feathers broken through one-half inch; tail sheaths showed about one inch long. While there was a slight difference in size among the birds there seemed little difference in growth of feathers. The down was getting very heavy on the back and flanks, and the underparts had become nearly bare. No signs of food of any kind were to be seen around the nest. The mother bird was on guard on a limb of the large fir tree. She struck a number of times at me, once a hard rap with her claws on my shoulder.

July 19 I reached the nesting site at 10 A. M. For the first time since the young had hatched calls of the parent birds were not to be heard. I thought perhaps both were away hunting, but on my start up the tree the mother bird put in an appearance with her usual ferocity, though the male bird did not appear.

I had strapped the basket on my back and after a few minutes at the nest I placed four of the young in the basket and descended to ground. I proceeded to the previous base of operations and started to work with the camera. The birds were very restless, owing doubtless to the extreme heat and to the strange surroundings. Two of the young hawks hopped from the platform of twigs and jumped to the ground, a distance of two feet. The male bird returned while I was making negatives of the young, and both parent birds kept up a constant "cha, cha, cha". The female uttered a very plaintive cry when I took the young from the nest and several times while I was handling the young to photograph. The wing feathers of the young projected an inch from the sheaths. Feather development was almost the same on all five young. Considerable down adhered to the nest, but there were no signs of food.

July 23 I visited the nest late in the afternoon, finding the parent birds away some distance. The female returned while I was ascending to the nest. Just as I peered over the edge one of the young birds made a quick turn and made an attempt to fly away, but only sailed a few feet, struck a limb, turned a somersault, and fell to the ground right side up. I descended at once and returned "smarty" to the nest. The other young ones retreated to the outer edge of the nest and showed considerable fear. One bird nearly toppled over the edge, but the keen-eyed mother darted past and struck the young bird with her wing driving it back to the center of the nest. Great quantities of down hung to the nest twigs. No signs of food.

July 26 I reached the nesting ground at 9:30 A. M., hardly expecting to find any young in the nest. The old birds were away, but the female promptly arrived when I started to climb the tree. When I was about half-way up, the mother gave what seemed to be a warning cry, and hawks were flying in all directions. They must have all left at once. When I reached the nest it was entirely deserted. The nest cavity was about gone, the surface being nearly level and well covered with down. The breast and leg of a small bird lay on the nest.

I spied two of the young hawks on a limb about twenty feet from the ground on a nearby tree, and that being all I could locate I descended the nest tree and started up the tree harboring the young. This tree was a hard one to climb; when I reached the limb I thought I would be able to catch the birds, but they both sailed away and one missed footing on the next tree and fell to ground. I soon secured this one and placed it in the closed basket. I then started up the tree for the other bird, and gave the limb a hard shake. The second one thereupon came to the ground, but came near escaping by getting into a dense thicket. I searched a number of the trees from below, and shook all the small ones near the nest, but detected no more hawks. I ascended the nest tree again and finally located another

young bird in a nearby tree. After I had climbed three trees it finally escaped in a dense thicket and I gave up the chase. The mother bird would alight quite near while I was climbing for the young, and utter a plaintive "cheep, cheep".

I carried the two young hawks to the edge of the thicket and perching them on a dead limb made several negatives of them. I brought the two captives home with me and put them in a large cage to note further developments.

On the 30th of July I again visited the nesting site, and discovered the three remaining young hawks perched near the top of a tall dead tree about thirty yards from the nest tree busy preening their feathers. Considerable down was hanging to the limbs and occasionally a bit would float away on the breeze. I remained hidden nearby all the afternoon observing the young through glasses. The



Fig. 16. "HANDS OFF"—A CHARACTERISTIC POSE; AGED 23 DAYS; PHOTOGRAPHED JULY 26; NOTE DEVELOPMENT OF PLUMAGE

old birds were away, no doubt foraging in the interests of their hungry offspring.

Late in the afternoon I heard one of the old birds call and had just caught a glimpse of its wings when all the young uttered a faint "cheep, cheep", and flew to a tree some distance off. After a short time two of the young returned to the dead tree; one remained away some time, finally returning to the other two. I remained quite late but observed no further evidences of feeding, so returned home.

On the 1st of August the last down had disappeared from the captive birds, that being on top of the head. They seemed to stand captivity very well but remained extremely wild. I kept their cage hung well up in a tree, and fed them exclusively on raw beef, three ounces for both birds at a meal, morning and eve-

ning. They would gulp the meat down just as fast as they could, when I cut it in small bits, and were able to tear the meat into shreds when in large pieces.

On the 9th of August I returned to the nesting site with the two captives in a basket. I liberated them at the edge of the thicket and they flew up and lit near the top of a small fir tree where they behaved for a time as though quite out of place. I remained quiet and soon heard a call from a young hawk on the other side of the thicket and was surprised soon after to see the mother bird fly to the tree where the two liberated hawks were perching. I had hardly expected to find the old and young still so near the nest. I was not able to remain at the nesting site any longer, and this was the last I saw of the hawks.

From the amount of feathers scattered over the ground in the thicket I am of the opinion that young birds formed the exclusive diet of this family of Sharpshins.

THE PEOPLE'S BREAD

A Critique of "Western Bird Guide"*

By WILLIAM LEON DAWSON

WE HAVE LONG needed an accurate color guide and manual, of convenient pocket size, to facilitate the recognition of our birds afield. Whether or not the "Western Bird Guide" is the book we have been looking for, it is the purpose of this paper to enquire. The dimensions of this little book are admirable— $\frac{1}{2} \times 3\frac{3}{8} \times 5\frac{3}{4}$ inches—just right to slip into the pocket and take along for an all-day hike. And when it is understood that the 255 pages of this book contain 231 cuts in color, representing nearly 500 species of Western birds, together with descriptive text, and that its price ranges from \$1.25 *down*, its importance as a formative element in the instruction of our Western youth is apparent. It becomes of the first interest, therefore, to ask whether it also answers the tests of scholarship, accuracy, and substantial worth.

We are not told anything as to the authorship of this little manual, but we may assume that it was conceived and partly sketched in by Chester A. Reed, and that his recent lamented death left the task to other and less experienced hands to finish. If this be the case, the book was brilliantly conceived but indifferently executed. Fortunately, it is not incumbent upon us to apportion praise or blame to individuals as such in this connection, but only to judge of the result, that which is offered to us in the name of ornithological bread.

The late Mr. Reed was one of comparatively few American bird painters who could catch the authentic character of the birds and hit it off in happy, confident fashion. While not of the first class, his work usually ranked high, and the contributions of his brush are what give this volume such value as it has. "C. A. R." drops out on page 114, and the plates immediately following cease to have any definitive value, descending at times to the level of caricature. Shades of Kit Carson! Is that a Roadrunner? But then, "H. F. H." never saw the bird, and he is doing the best he can. The Coppery-tailed Trogon and some others remind us of the souvenir series once put out by the "Arm and Hammer" brand of soda. The Woodpeckers are better, some of them quite decent in fact. Having gotten up speed again our aspirant takes a bad header over the Swift hurdle, and rising, bruised and angry, proceeds to slaughter the Hummers and Flycatchers.

* Western Bird Guide | Birds of the Rockies and West to the Pacific | Illustrated by Chester A. Reed, B.S. | Harry F. Harvey | R. I. Brasher | 1913 | Doubleday, Page & Co., Garden City, N. Y. Flexible leather, \$1.25.